

Appl. No. 10/757,944
Amdt. Dated February 3, 2005
Reply to Office Action of August 5, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions of claims in the application.

Listing of Claims:

Claim 1. (amended) [[An]] In a gas distribution system, an improved method of vaporizing a compressed liquefied gas stored in a tank at atmospheric temperature with [[an]] single stage atmospheric temperature air vaporizer and through which said gas passes for vaporization thereof by utilizing the heat of the ambient air, comprising the step of passing said liquefied gas through a liquid pressure reduction valve so as to reduce its boiling point prior to passing said gas including both liquid and gas phases thereof through said vaporizer, wherein passing said liquefied gas through said liquid pressure reduction valve increases the difference between the vaporizing temperature of the compressed liquefied gas and the temperature of the ambient air available to supply heat to vaporize said liquefied gas.

Claim 2 (canceled)

Claim 3. (amended) The method of increasing the vaporization rate of a compressed liquefied gas stored in an uninsulated tank at atmospheric temperature including and having gas in a liquid phase with gas in a vapor

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phase thereabove including the steps of withdrawing vaporized gas via a supply line having a pressure control regulator thus allowing the pressure and liquid temperature within the tank to be lowered below the atmospheric air temperature surrounding the tank and thence the pressure within the tank allowed to use as the ambient air heat passes through the tank to subsequently raise the temperature of the gas, comprising placing a secondary external vaporizer in the system separate from said supply line so as to increase the rate of heat transfer from the ambient air to said gas stored in said tank, said secondary external vaporizer having a liquid head pressure control regulator positioned between the liquid tank withdrawal line and the inlet of said secondary external vaporizer.

4. (amended) An improved method of vaporizing liquefied carbon dioxide stored under pressure in a tank wherein said liquid carbon dioxide is passed through a vaporizer and thence withdrawn in a gaseous state via an exit line[[,]] which in turn passes into a gas customer distribution system having varying pressure levels, the improvement comprising passing said liquefied carbon dioxide through a liquid pressure reduction valve so as to reduce its boiling point prior to passing said gas through said vaporizer and simultaneously controlling the vaporizing pressure within the vaporizer above

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the triple point of carbon dioxide so as to prevent formation of solid carbon dioxide from forming, wherein the vaporizing pressure is controlled by a backpressure control regulator in the exit line, and wherein a pressure relief valve positioned between the vaporizer and the backpressure control regulator.

Claims 5 and 6 (canceled)

Claim 7. (amended) The method of claim [[5]] 4 wherein the vaporizing pressure within the vaporizer is maintained above 75.10 PSIA corresponding to a boiling temperature of -69.9°F.